

1 **ABSTRACT**

2 A system has an image store, a digital hashing unit, and a watermark
3 encoder. A digital image hashing unit computes a hash value representative of a
4 digital image in such a manner that visually similar images hash to the same hash
5 value and visually distinct images hash to different values. The hash value is
6 stored in an image hash table and is associated via the table with the original
7 image. This image hash table can be used to index the image storage. A
8 watermark encoder computes a watermark based on the hash value and a secret.
9 Using both values renders the watermark resistant to BORE (Break Once, Run
10 Everywhere) attacks because even if the global watermark secret is discovered, an
11 attacker still needs the hash value of each image to successfully attack the image.
12 The system can be configured to police the Internet to detect pirated copies. The
13 system randomly collects images from remote Web sites and hashes the images
14 using the same hashing function. The system then compares the image hashes to
15 hashes of the original images. If the hashes match, the collected image is
16 suspected as being a copy of the original.

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